Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1-8.   (Cancelled)

9.   (Currently Amended) A method, comprising:

periodically transmitting, at a switch, a first heartbeat message to a network having one or more repeaters, the heartbeat message including a virtual local area network (VLAN) identifier (ID) identifying the switch;

listening, at a previously unknown repeater on the network, to messages transmitted over the network for the <u>first</u> heartbeat message identifying the switch when the previously unknown repeater is activated; [[and]]

sending, by the previously unknown repeater, a second heartbeat message using the VLAN ID identifying the switch after finding the first heartbeat message; and

receiving, at the previously unknown repeater, VLAN configuration information from the switch in response to the switch receiving second heartbeat message.

10.   (Previously Presented) The method of claim 9, further comprising:

downloading operating software to the previously unknown repeater to set up an operating environment;

entering, by the previously unknown repeater, into an operating state after setting up the operating environment; and

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reporting, by the previously unknown repeater, the operating state to the switch.

11-25. (Cancelled)

26. (Currently Amended) A method, comprising:

determining, at a repeater, that a link between the repeater and a switch is down

based on at least one of a group consisting of a heartbeat, a beacon, and a data message

received from the switch; and

performing a reset process, by the repeater, that enables the repeater to reestablish

a new connection with the switch over the link in response to the determination, wherein

the reset process comprises:

listening, at the repeater, for messages broadcasted over a network;

identifying at least one message that is associated with the switch, the at

least one message associated with the switch including a virtual local area network

(VLAN) identifier (ID) ~~VLAN ID~~ identifying the switch; and

reestablishing the new connection with the switch using the VLAN ID.

27. (Currently Amended) A method, comprising:

determining, at a repeater, that a connection between the repeater and a switch is

down based on at least one of a group consisting of a heartbeat, a beacon, and a data

message received from the switch; and

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performing a reset process, by the repeater, that enables the repeater to reestablish a new connection with the switch in response to the determination, wherein the reset process comprises:

broadcasting a message at the repeater to the switch, the message indicating that the repeater is entering a network;

receiving virtual local area network (VLAN) configuration information from the switch;

downloading operating software from the switch to launch an operating environment of the repeater; and

communicating with the switch using the VLAN configuration information in subsequent communications.

28. - 40.   (Cancelled)

41.   (Previously Presented)   The method of claim 9, wherein the one or more repeaters are communicatively coupled to the switch.

42.   (Currently Amended) The method of claim 9, further comprising:

storing the VLAN ID identifying the switch in a local memory after finding the first heartbeat message identifying the switch.

43.   (Cancelled)

44.   (Currently Amended) The method of claim 9, wherein the step of listening, at the previously ~~inactive~~ <u>unknown</u> repeater, comprises:

listening, at the previously unknown repeater, to all messages transmitted over the network regardless of VLAN types; and

looking for the <u>first</u> heartbeat message identifying the switch when the previously unknown repeater is activated.

45.   (Currently Amended) The method of claim 9, ~~wherein the previously unknown repeater is activated~~ <u>further comprising:</u>

<u>activating the previously unknown repeater</u> by performing at least one of a group consisting of:

powering up the previously unknown repeater, and

plugging the previously unknown repeater into a port of the switch.

46.   (Previously Presented)   The method of claim 9, wherein the VLAN configuration information includes a VLAN ID identifying traffic criteria.